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SMART Hygiene Kit

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ABSTRACT

The new norm has pushed forward the practice of 3Ws (wash, wear, warn) introduced by the government to the public to prevent the further spread of COVID-19 (KKM, 2020). The COVID-19 virus spreads via droplets released when someone infected with the virus sneezes or coughs. Although there are various sources of information to educate the public about the importance of the 3W practice, there are still existing concerns on the improper wearing of face masks and hygiene practices. Thus, experts emphasize the importance of wearing face masks in public, proper personal hygiene, and disinfection practice to reduce the risk of virus infection. Many products related to COVID-19 protection, such as masks, sanitizers, and disinfectants, are sold in the market separately. It can be inconvenient, especially for having to carry many things at once. Therefore, a potential solution to reduce these worries is a new innovative product called 'SMART Hygiene kit', which combines the necessary mask protectors, hand sanitizer, and surface disinfectant. The interesting part is the compact size, and it comes in many colors which suit the preferences and personality of the users. The product is also equipped with a ring to hang it on their bag for the convenience of users. The novelty of this product is the convenience of bringing one product, 'SMART Hygiene kit', which provides all we need to prevent the spread of COVID-19. This innovation is useful for everyone by easing them to bring one product instead of getting all these necessities separately.

Keywords: COVID-19, Hand Sanitizer, Surface Disinfectant, Mask, Mask protector

INTRODUCTION

COVID-19 has purportedly spread from China's Hubei province to over 100 countries, prompting a worldwide pandemic since December 2019 (Duddu, 2020). People are encouraged to wear face masks in public, to wash their hands or use hand sanitizers every time they put on and take off their masks. Since masks are considered a critical step to prevent the spread of

COVID-19, it is important that proper wearing of face masks is practiced while in public places. For example, face masks should not be worn below the chin or neck because it will pose risk for contamination. Additionally, disinfection practices are also important to reduce COVID-19 virus contamination. High-touch surfaces such as door handles, handrails, bathroom surfaces, sinks, toilets, taps and touchscreen personal devices need to be disinfected. One can easily be infected when touching surfaces that have been contaminated by the virus, when touching our eyes, nose or mouth without cleaning our hands. There may be dried droplets of sputum in a public area resulting from anyone sneezing or coughing. Therefore, disinfection by wiping or spraying is the ideal means of surface disinfection. While sanitizers and disinfectants are commonly referred to interchangeably, the two types of products are actually different, and should be used in different situations. In short sanitizers reduce bacteria on a surface by at least 99.9% while disinfectants kill a wider range of microorganisms (than sanitizers).

COVID-19 virus transmits largely through saliva droplets when an infected individual is coughing or sneezing (Butt, 2021). Hygiene is fundamental to making human progress. Personal hygiene is important as it prominently protects people from certain dangerous diseases (Zain and Shehu, 2018). Personal hygiene has become even more vital for everyone considering the current state of the COVID-19 pandemic. According to Govindan et al. (2020), individuals need to protect themselves and others from infections by thoroughly washing their hands. Handwashing reduces the risk of disease transmission; however, it can be difficult to wash hands in public properly. In addition, many products related to COVID-19 protection, such as masks, sanitizers, and disinfectants, are sold in the market separately. It can be inconvenient, especially for having to carry many things at once. Therefore, the potential solution to address this problem is a new innovative product called the SMART Hygiene Kit, which combines the necessary mask protector, hand sanitizer, and surface disinfectant.

Objective

The two major ways to protect ourselves during the COVID-19 pandemic is by washing our hands regularly, sanitizing them and cleaning commonly touched surfaces. Therefore, the objective of this project is to ensure users' convenience of keeping hygiene while in public places and avoid the spread of the virus COVID-19 using the SMART Hygiene Kit. The SMART Hygiene Kit is a game changer in regular, detailed cleaning or sanitation practices amidst this COVID-19 pandemic.

RESULT AND FINDINGS

The result of the project is "SMART Hygiene Kit". The main objective of SMART Hygiene Kit is convenient for the users to bring one product at one time.

Figure 1 shows the product components. This will solve the problem of people having trouble or find it a hassle to bring different types of hygiene products separately during this Covid-19 pandemic.

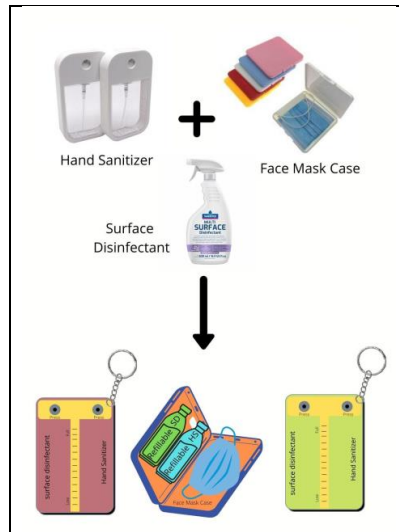


Figure 1. SMART Hygiene Kit components

SMART Hygiene Kit components

SMART Hygiene kit combines multiple products into one complete and convenient product, the combination of hand sanitizer, face mask protector and surface disinfectant makes it perfect for everyone to own it. SMART Hygiene Kit is eco-friendly because it has a refillable container and it is economical. It is also made from biodegradable plastic, which is not only durable but also safe for the environment.



Figure 2. Multiple choice of color and natural fragrance

Potential Commercialisation

SMART Hygiene Kit has a good potential for commercialization since there is no such product

that is similar in the market today. SMART Hygiene Kit is an innovative product with a complete combination of all the necessary functions for sanitation, protection and maintaining cleanliness. The interesting part is the compact size, easy to carry and it comes in many different colors and natural fragrances which suit the preferences and personality of the users as shown in Figure 2.

CONCLUSION

In summary, the objective of this project is accomplished where the project is capable of providing a convenience to the users. This project will benefit users as it will ease them to bring one product instead of getting all these necessities separately.

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